

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2011 has been entered.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. In regards to claim 43, Steinhage does disclose the claimed top and bottom blocks as noted below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33,35,36,41,42 rejected under 35 U.S.C. 103(a) as being unpatentable over Steinhage et al (2550945) in view of Bouchard et al (6108995) and further in view of Gravier et (5623797) and further still in view of Wieser (4193584).

Claims 33,42. Steinhage et al discloses a block for forming a wall, wherein a plurality of analogous blocks being overlapped staggeringly and continuously in the wall, comprising:

a block being a longitudinally profiled member, and including a top surface, a bottom surface and two end surfaces;

the cross section of the block being substantially of a shape of downward-flared recess (as seen in for example figure 2);

the top surface of said block having a mid ridge (107) higher than two sides of the surface so that a left supporting slope (generally 110, 105, 101) and a right supporting slope (generally 111, 106, 102) form the downward-flared recess;

said top surface and bottom surface being formed such that when the block being overlapped with an analogous block thereunder to form the wall, the top surface of the underlying block being engaged with the bottom surface of the upper block, the left and right supporting slopes being used as a blocking structure and interlocking the vertically adjacent blocks (as seen in figure 4);

wherein said left supporting slope and the right supporting slope each including a sloped upper slope portion (110, 111) and a lower shoulder (105,106), respectively, each shoulder having a top shoulder surface (generally at 105,106), a bottom shoulder surface (103,104), and a lateral side surface (the side extending therebetween), the top shoulder surface, the sloped upper slope portion and the mid ridge constituting said top surface, the bottom shoulder surface is horizontal (as seen in the figures), the bottom shoulder surface and a bottom foot (as noted in the annotated figure below) on one side

are at the same plane, when the block being engaged with an upper analogous block to form the wall, a projecting portion formed by the sloped upper slope portion being engaged with a downward-flared shaped recess of the upper analogous block, said top surface, constituted by the top shoulder surface, the sloped upper slope portion and the mid ridge (where all of these elements of Steinhage as noted above, present a top face of the block) supporting the upper analogous block (as seen in figure 4);

said blocks being engaged with auxiliary blocks in the construction of the wall; and masonry joints being formed between the adjacent blocks, horizontal masonry joints being formed by the engagement between the top surfaces and the bottom surfaces, vertical masonry joints being formed by the engagement between the end surfaces, the vertically adjacent vertical masonry joints being arranged staggeringly (as seen in the figures and noted in the disclosure).

Steinhage does not expressly disclose that the blocks being shaped and sized such that when three analogous blocks being overlapped vertically, a top of a ridge of the bottommost block being higher than a bottom foot of the uppermost block, and (as seen in the figures); or that a one-piece pillar is provided I the wall with at least one outward extending piece being provided on the pillar.

Bouchard discloses a block for forming a wall having a mid ridge and left and right supporting sloping surfaces and further Bouchard discloses an embodiment where when three analogous blocks are vertically stacked the distance between a top ridge of the bottommost block is higher than the bottom foot of the uppermost block (as seen in figure 31).

Thus, it would have been obvious to a person of ordinary skill in the art to try the distance configuration in an attempt to provide an improved design of blocks, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, because the block as claimed has the properties predicted by the prior art, it would have been obvious to modify the block of Steinhage to have a mid-ridge of a bottommost block higher than the bottom foot of a third block vertically stacked to provide an improved design for resisting water penetration at the joints.

Gravier discloses a wall made of blocks including a pillar (generally 74) and having a horizontal outward extending piece (the first block extending out from the pillar) provided on the pillar similar to the blocks, where one end surface of the outward-extending piece being engaged with the pillar; the other end surface of the outward-extending piece being engaged with the blocks, the top surface of the outward-extending piece being engaged with the bottom surface of the upper block, the bottom surface of the outward-extending piece being engaged with the top surface of the underlying block, a plurality of outward-extending pieces being arranged separately and orderly on the pillar, said outward-extending pieces being engaged with the staggeringly overlapped blocks adjacent to the pillar.

Gravier doesn't disclose a one-piece pillar, but rather discloses that the pillar is made of multiple pieces stacked together.

Wieser discloses a wall structure having a one-piece pillar for engaging with the wall portions.

At the time the invention was made it would have been obvious to use the block of Steinhage in view of Bouchard to make a wall with a pillar as disclosed by Gravier to have a block and outward extending piece with a shape and design as disclosed by Steinhage to provide a wall with blocks having a solid connection to make the pillar one-piece as disclosed by Wieser to simplify construction where the one-piece pillar does not require the builder to assembly the individual components which is faster and less expensive. Further it is noted that one of ordinary skill in the art would have had the common sense and ability to pursue known options and substitute one block/pillar design for another to achieve a desired and predictable result. Therefore the substitution of one known block and/or pillar design for another, or the use of a block/pillar to make a known wall system is not considered novel but rather obvious.

Claim 35. Wherein girders (20) are provided in the wall, a projecting piece (as noted in claim 34 above, where the projecting piece is the first block to engage the pillar) being provided on a top surface of one girder, a lower surface of the projecting piece being engaged with the top surface of the girder, the projecting piece extending to the pillar at a nodal point of two adjacent beam/pillar, and engaging with the pillar, the projecting piece being engaged with the downward-flared recess of the block (where a block would be placed above); a groove being provided on a bottom surface of another girder, the groove extending to the pillar at the nodal point of two adjacent beams, the groove being engaged with the top surface of the block, when the block engaging with the bottom surface of the girder (as seen in the figures).

Claim 36. The wall according to claim 33 as above does not expressly disclose an isolation layer. Bouchard does disclose an insulation layer (140), provided on a wall, being composed of several isolation sublayers as claimed. At the time the invention was made it would have been obvious to one of ordinary skill include an isolation sublayer to facilitate building the wall and add additional structure to the wall.

Claim 41. The block for forming a wall according to claim 33, wherein the sloped upper slope portion (at least at 110,111) is at an obtuse angle with the lower shoulder (as seen in the figures), at least a portion of an upper surface (105,106) of the sloped upper slope portion being in contact with a lower surface of the downward flared shaped recess of the upper analogous block (as seen in the figures).

Claim 37 rejected under 35 U.S.C. 103(a) as being unpatentable over Steinhage et al (2550945) in view of Bouchard et al (6108995) and further in view of Gravier et (5623797) and further still in view of Wieser (4193584) and further still in view of Dwyer et al (1686270).

Claim 37. The wall according to claim 33 as above, doesn't expressly disclose a miter wall as claimed. However Dwyer discloses a block structure, wherein said block being in a shape of a elongated plate (as seen in the figures), a miter wall being formed by staggeringly overlapping the elongated blocks, a vertical masonry joint being formed by the connection of the end surfaces of two blocks, the vertically adjacent vertical masonry joints being disposed in a staggered manner, the end of the elongated block being supported on a supporting member (as seen in figures 1-2).

In view of the above references it would have been obvious to one of ordinary skill in art the time the invention was made to use the block of Steinhage in view of Bouchard to form a wall system as disclosed by Dwyer as using blocks to form walls is notoriously common and well known and it would be desirable to use an appropriate and aesthetically pleasing design in creating a wall assembly. Further one of ordinary skill in the art has good reason and would have the common sense to pursue known block designs when building a wall assembly such as that disclosed by Dwyer and since the block of Dwyer and Steinhage in view of Bouchard are similar in that they both have a mid-ridge and slopes with shoulders one of ordinary skill in the art would have reasonable expected the block of Steinhage in view of Bouchard to be suitable for forming the wall assembly of Dwyer as noted above and according to claim 37.

Claim 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Steinhage et al (2550945) in view of Bouchard et al (6108995).

Claims 43. Steinhage et al discloses a block for forming a wall, wherein a plurality of analogous blocks being overlapped staggeringly and continuously in the wall, comprising:

a block being a longitudinally profiled member, and including a top surface, a bottom surface and two end surfaces;

the cross section of the block being substantially of a shape of downward-flared recess (as seen in for example figure 2);

the top surface of said block having a mid ridge (107) higher than two sides of the surface so that a left supporting slope (generally 11 O, 105, 101) and a right supporting slope (generally 111, 106, 102) form the downward-flared recess;

said top surface and bottom surface being formed such that when the block being overlapped with an analogous block thereunder to form the wall, the top surface of the underlying block being engaged with the bottom surface of the upper block, the left and right supporting slopes being used as a blocking structure and interlocking the vertically adjacent blocks (as seen in figure 4);

wherein said left supporting slope and the right supporting slope each including a sloped upper slope portion (110, 111) and a lower shoulder (105,106), respectively, each shoulder having a top shoulder surface (generally at 105,106), a bottom shoulder surface (103,104), and a lateral side surface (the side extending therebetween), the top shoulder surface, the sloped upper slope portion and the mid ridge constituting said top surface, the bottom shoulder surface is horizontal (as seen in the figures), the bottom shoulder surface and a bottom foot (as noted in the annotated figure below) on one side are at the same plane, when the block being engaged with an upper analogous block to form the wall, a projecting portion formed by the sloped upper slope portion being engaged with a downward-flared shaped recess of the upper analogous block, said top surface, constituted by the top shoulder surface, the sloped upper slope portion and the mid ridge (where all of these elements of Steinhage as noted above, present a top face of the block) supporting the upper analogous block (as seen in figure 4);

said blocks being engaged with auxiliary blocks in the construction of the wall; and masonry joints being formed between the adjacent blocks, horizontal masonry joints being formed by the engagement between the top surfaces and the bottom surfaces, vertical masonry joints being formed by the engagement between the end surfaces, the vertically adjacent vertical masonry joints being arranged staggeringly (as seen in the figures and noted in the disclosure); and

said blocks being engaged with the auxiliary blocks in the construction of the wall the auxiliary blocks comprising a top surface auxiliary block (24) and a bottom surface auxiliary block (22), the top surface of the top surface auxiliary block is planar (as seen in figures 5,6), the bottom surface of the top surface auxiliary block has a same contour as that of the block (as seen in figures 5,6), the bottom surface of the bottom surface auxiliary block is planar, and the top surface of the bottom surface auxiliary block has a same contour as that of the block (as seen in figures 5,6).

Steinhage does not expressly disclose that the blocks being shaped and sized such that when three analogous blocks being overlapped vertically, a top of a ridge of the bottommost block being higher than a bottom foot of the uppermost block, and (as seen in the figures).

Bouchard discloses a block for forming a wall having a mid ridge and left and right supporting sloping surfaces and further Bouchard discloses an embodiment where when three analogous blocks are vertically stacked the distance between a top ridge of the bottommost block is higher than the bottom foot of the uppermost block (as seen in figure 31).

Thus, it would have been obvious to a person of ordinary skill in the art to try the distance configuration in an attempt to provide an improved design of blocks, as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, because the block as claimed has the properties predicted by the prior art, it would have been obvious to modify the block of Steinhage to have a mid-ridge of a bottommost block higher than the bottom foot of a third block vertically stacked to provide an improved design for resisting water penetration at the joints.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Laux/
Primary Examiner, Art Unit 3635